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Amendments to the Claims:

Please amend the claims as follows. This listing of claims will replace all prior listings.

1. (Currently Amended) An electric motor assembly, comprising:
a fluid circulation circuit;
a housing having a cavity that is fluidly connected to said fluid circulation circuit;
an electric motor having at least one electric motor component disposed in the cavity; and
a thermally conductive fluid that fills for circulation through the cavity to substantially submerge said at least one electric motor component.
2. (Cancelled)
3. (Cancelled)
4. (Currently Amended) The assembly of claim 31, wherein the housing further comprises a partition and the electric motor comprises a rotor, a stator iron, and a stator winding, the partition separating the rotor from the stator iron and the stator winding,
wherein a space between an exterior portion of the partition and the housing forms the cavity, and wherein the thermally conductive fluid fills the cavity to substantially submerge at least one of the stator iron and the stator winding without contacting the rotor.
5. (Original) The assembly of claim 1, wherein the thermally conductive fluid is a dielectric fluid.
6. (Original) The assembly of claim 5, wherein the dielectric fluid is a dielectric oil.

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7. (Cancelled)
8. (Cancelled)
9. (Cancelled)
10. (Currently Amended) The assembly system of claim ~~7~~1, wherein the housing has a fluid inlet and a fluid outlet, and wherein the system further comprises:
 - a fluid pump that circulates the dielectric fluid through the fluid inlet into the cavity and out of the fluid outlet; and
 - a fluid reservoir that houses excess dielectric ~~lubricant~~fluid.
11. (Currently Amended) The assembly system of claim ~~10~~1, further comprising a heat exchanger in fluid communication with the dielectric fluid~~that receives the dielectric fluid from the cavity and removes heat from the dielectric fluid.~~
12. (Currently Amended) The assembly system of claim ~~10~~1, further comprising a filter connected upstream of the housing to filter particles from the dielectric fluid ~~before the fluid is sent into the cavity.~~
13. (New) The assembly of claim 1, wherein said at least one electric motor component includes one of a rotor and a rotor bearing substantially submerged in said thermally conductive fluid.
14. (New) The assembly as recited in claim 1, wherein said dielectric fluid is in fluid communication with a bearing which supports a rotor shaft.

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15. (New) The assembly of claim 1, wherein said at least one electric motor component comprises a rotor rotatable about a rotor axis, said rotor rotatable while substantially submerged in said dielectric fluid to circulate said dielectric fluid through said cavity.
16. (New) The assembly of claim 1, wherein said fluid circulation circuit includes a portion that is outside of said housing.
17. (New) The assembly of claim 1, wherein said electric motor includes a rotor output shaft that is coupled to an engine, said engine in fluid communication with said fluid circulation circuit.
18. (New) The assembly of claim 17, wherein said dielectric fluid comprises engine oil received from said engine through said fluid circulation circuit.
19. (New) The assembly of claim 17, wherein said engine comprises a gas turbine engine.

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20. (New) A method of cooling and lubricating an electric motor assembly, comprising:
- (1) circulating a dielectric fluid through a motor housing cavity having an electric motor disposed therein;
 - (2) communicating heat from the electric motor directly into the dielectric fluid; and
 - (3) lubricating a moving component of the electric motor with the dielectric fluid.
21. (New) The method of claim 20, wherein said step (1) further comprises directly transferring heat from a rotor bearing of the electric motor to the dielectric fluid, and said step (2) further comprises lubricating the rotor bearing with the dielectric fluid.
22. (New) The method of claim 20, further comprising:
- (4) rotating a component of the electric motor to circulate the dielectric fluid through the motor housing cavity.
23. (New) The method of claim 20, wherein said step (1) further comprises circulating the dielectric fluid between the motor housing cavity and an engine and selectively operating the electric motor to drive the engine.